SF 6.9.12

Plan for Bunker Hill Work **12/2/97**

Transfer of Federally Owned Properties to the State of Idaho

- Tour federally owned properties with appropriate State and other personnel (Jerry Cobb and Chuck Moss? Assume that Curt Fransen and Ted Yackulic will also get involved.)
- Discuss and reach agreement with State on when cleanup or other efforts will be completed on federally owned properties, what if any long term O&M activities are appropriate for various parcels, when properties will be ready for State of Idaho to take ownership, and steps necessary for certification of completion by EPA and State.
- Discuss and understand State's long term development interests in particular federal parcels, long term economic development issues in the Silver Valley (Brownfield project and Peak and Valley report), and State's land transfer and surplus property processes.
- Jointly develop (EPA/State) a Land Transfer Plan that would become a part of the State Superfund Contract and lay out EPA/State understanding on the above.

Identifying Long Term Water Treatment Needs and Operations

- Initiate discussions between EPA and the State (need to determine who the key players are) on how to best address long term water treatment needs for acid mine drainage and other site surface water.
- Develop a shared vision (EPA/State) of what we want or expect for long term water treatment at the site. (State folks have already initiated some of these discussions through their "Central Treatment Plant Committee"). Reach agreement on when operation and maintenance begins for final water treatment measures.
- Determine what additional investigations are necessary to make our shared vision a reality, or to determine if the vision is even achievable. Some initial thoughts of EPA's are on the attached page. Determine how best to accomplish these investigations (i.e., who will fund and carry out these investigations).
- Discuss the role of the current or any potential future mine owner in funding and carrying out any necessary investigations and/or implementation of water treatment measures for mine water.
- Jointly develop a Long Term Water Treatment Plan that would become a part of the State Superfund Contract and lay out EPA/State understanding on the above.

EPA's Initial Thoughts on Additional Mine-Related Investigations

Hydrogeological Investigations of the Mine - Conduct investigations in order to further understand the hydrogeology of the mine, and the relationship of mine water to the surrounding surface water bodies. Detail areas where water flows into and out of the mine so that actions could be taken to reduce inflow and thereby reduce the amount of mine water that eventually needs to be treated. Investigate the water storage capacity of the mine by looking at how high mine water can get without impacting the surrounding surface water bodies - this could help to reduce infrastructure costs for pipes and pumps. Conduct geochemical evaluations to determine if there are areas of the mine with greater impact on acid mine formation. Estimate the condition and stability of the inside workings of the mine as a first step in evaluating in-mine sludge disposal and in-mine treatment processes. Evaluate mineral reserves in the mine.

In-Mine Treatment Options - Investigate in-mine treatment options, processes, costs, and overall feasibility. Compare with continued treatment and/or enhancement at the CTP.

In-Mine Sludge Disposal - Investigate the feasibility of in-mine sludge disposal including the disposal capacity of the mine, likely disposal locations, chemical characteristics of sludge and mine water, and associated costs.

Geotechnical Investigation of the Reed Dump - Evaluate the long term stability of this tailings dump, the extent to which it impacts water quality in Milo Creek, and its relationship or hydrogeological connection to the mine.

Assessment of the Current Piping System from the Mine to the CTP - Evaluate the current system of pipes from the mine to the lined pond and the CTP. Assess the quality of these pipes, the extent to which leaks in the pipes might contribute to contaminant loading in Bunker Creek, any recommended improvements to the current piping system.

Water Treatment Enhancements as May be Required by TMDLs - Investigate potential enhancements to the CTP, and associated costs, that may be necessary in the future to meet TMDLs that are currently being developed. Compare to costs of building a new treatment plant. Research state of the art in terms of best available technology for water treatment.